

AMENDMENTS TO THE DRAWINGS:

Figs. 5-6 have been amended to include the legend "Prior Art" to indicated their status as prior art. A total of two (2) replacement sheets are included with this amendment.

REMARKS

I. Introduction

In response to the January 9, 2008 Office Action, Applicants have amended the Abstract and drawings in order to overcome the objections. No new matter has been added.

For the reasons set forth below, Applicants respectfully submit that all pending claims are patentable over the cited prior art references.

II. The Rejection of Claims 1-8 And 17 Under 35 U.S.C. § 103

Claims 1, 3-5 and 7-8 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Mizutani (US 2003/0180605) in view of Reichert et al. (USP No. 6,217,623) and Tsukamoto et al. (USP No. 6,022,642); and claims 2 and 6 were rejected as being unpatentable over Mizutani, Reichert and Tsukamoto in further view of Komatsu et al. (US 2002/0146626). Applicants respectfully traverse the pending rejections for at least the following reasons.

With regard to the present invention, claims 1 and 5 recite a lithium ion secondary battery and a method of producing the battery, respectfully, includes an electrode group that comprises...a porous film which comprises a filler and a binder, a positive electrode and a negative electrode which are wound around a winding core, and the positive electrode and/or the negative electrode have/has, on the initial winding side, a region where an active material layer is carried on neither side of a core member and an adjoining region where the active material layer is carried on only one side of the core member.

One feature of the present disclosure is that at least one of the positive and negative electrodes has a porous film comprised of a binder and filler and on the initial winding side, a region where an active material layer is carried on neither side of a core member and an

adjoining region where an active material layer is carried on only one side of the core member. As a result of this feature, it is possible to effectively avoid breakage or falling off of the active material layer or the porous film near the edge of the electrode.

It is admitted in the Office Action that Mizutani fails to disclose the specified composition of the porous film layer. Reichert is alleged to remedy this deficiency, by teaching a porous film layer comprising a filler and a binder (see, col. 5, lines 32-39 of Reichert). The Examiner then alleges that it would have been obvious to replace the porous film of Mizutani with that of Reichert. However, it is respectfully submitted that this rejection is improper, as there is no valid basis to make the proposed combination.

The stated objective of Mizutani is to eliminate a component that does not contribute to power generation in order to provide a non-aqueous electrolyte battery which has a high energy density. To achieve this objective, Mizutani teaches a positive electrode and positive electrode laminate 5 disposed on one face of a separator extending from one end to about the center portion of the separator, and a negative electrode and negative electrode laminate extending on the other side of the separator from the other end to about the center region. The separator is then wound around its center to form a winding core material (see, paragraph [0013] and Figs. 1 and 7 of Mizutani). Thus, the separator has an area larger than the total area of the positive and negative electrodes.

However, a porous film comprising filler and binder can be formed only on the positive and negative electrodes, not the separator itself. Thus, if the porous film of Reichert, which has a positive and negative electrode on both sides of the separator, were used in the wound battery of Mizutani, the battery of Mizutani would be rendered inoperable for its stated purpose of

eliminating a component that does not contribute to power generation in order to provide a non-aqueous electrolyte battery which has a high energy density. Furthermore, Tsukamoto fails to remedy this deficiency.

As is well known in patent law, if a proposed modification would render the prior art invention being modified unsatisfactory for its intended purpose, then there is no suggestion or motivation to make the proposed modification. *In re Gordon*, 733 F.2d 900, 221 USPQ 1125 (Fed. Cir. 1984). As the porous film disclosed in Reichert would render the wound battery of Mizutani inoperable for its intended purpose, there is no suggestion or motivation to make the proposed combination of Reichert with Mizutani or Tsukamoto. Accordingly, Applicants respectfully submit that the § 103 rejection of claims 1 and 5 over Reichert, Mizutani and Tsukamoto be withdrawn.

Moreover, claims 4 and 8 recite, in-part, the limitation wherein on the initial winding side, **the winding core has a recess** at a position where it comes into contact with the starting position of the active material layer of said positive electrode or said negative electrode.

It is alleged that Tsukamoto discloses a winding core having a recess at a position where it comes into contact with the starting position of the active material layer of the inner electrode in Fig. 2 and paragraphs [0016]-[0017] of Tsukamoto. However, as can be seen, this allegation appears to be false. Nowhere in the reference or figures is there any mention of a winding core having a recess where it comes into contact with the inner electrode. As such, the rejection of claims 4 and 8 appears to be invalid.

III. All Dependent Claims Are Allowable Because The Independent Claim From Which They Depend Is Allowable

Under Federal Circuit guidelines, a dependent claim is nonobvious if the independent claim upon which it depends is allowable because all the limitations of the independent claim are contained in the dependent claims, *Hartness International Inc. v. Simplimatic Engineering Co.*, 819 F.2d at 1100, 1108 (Fed. Cir. 1987). Accordingly, as claims 1, 4, 5 and 8 are patentable for the reasons set forth above, it is respectfully submitted that all pending dependent claims are also in condition for allowance.

IV. Conclusion

Having fully responded to all matters raised in the Office Action, Applicants submit that all claims are in condition for allowance, an indication of which is respectfully solicited.

To the extent necessary, a petition for an extension of time under 37 C.F.R. 1.136 is hereby made. Please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account 500417 and please credit any excess fees to such deposit account.

Respectfully submitted,

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